

### **Remarks/Arguments**

With entry of this Amendment, claims 1-4, 6-24 and 26-27 are pending in the instant application. Claims 28-89 have been withdrawn as being directed to a non-elected invention. Applicants note that the Examiner inadvertently included claims 42-46 as pending in this application, although claims 42-46 are method claims which depend from non-elected independent method claim 28 which was subject to restriction, and thus claims 42-46 are hereby withdrawn by Applicants to be consistent with the Examiner's grounds for restriction. Independent claim 1 has been amended to include the limitations of dependent claim 25 therein, which claim 25 has been cancelled without prejudice or disclaimer. Claim 5 has been cancelled without prejudice or disclaimer as being redundant in view of pending claims 2-4. These amendments are made without prejudice to renewal of the claims in their original form and are not to be construed as abandonment or dedication of the previously claimed subject matter or agreement with any objection or rejection of record.

### **Objections to the Claims**

Claim 5 was objected to by the Examiner. As noted above, claim 5 has been cancelled without prejudice or disclaimer as being redundant in view of pending claims 2-4, thus mooting the Examiner's objection of this claim.

### **Claim Rejections Under 35 U.S.C. Sections 102/103**

Claims 1-19, 21-23 and 42-46 were rejected under 35 U.S.C. Section 102(b) as being anticipated by Flagan (US 2002/0074565) ("Flagan"). Claims 1, 3, 4, 5, and 23 were rejected under 35 U.S.C. Section 102(e) as allegedly being anticipated by Dai (US 2004/0144972) ("Dai"). Claim 20 was rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over Flagan. Claims 25-27 were rejected under 35 U.S.C. Section 103(a) as allegedly being unpatentable over Flagan in view of Hutchinson (US 2003/0077625) ("Hutchinson").

Independent claim 1 has been amended herein to include the limitations of dependent claim 25, e.g., to recite that the “nanoelements of the thin film of nanoelements are covered with surface functional groups.” At page 7 of the Office Action, claims 25-27 are rejected as obvious over Flagan in view of Hutchinson. The Examiner alleges that because Flagan teaches the use of electric fields to electrostatically deposit nanoparticles on a substrate surface (e.g., see paragraph [0051] of Flagan), that it would have been obvious to “use a siloxane chemistry to form a spacer group on the silicon nanoparticles (of Flagan) to orient the nanoparticles. Further this would inherently be soluble. One would have been so motivated in order to prevent polarization of said particles, and to reduce cost due to the availability of materials.” This rejection is respectfully traversed.

Applicants submit that the vague motivation for the combination of the Flagan and Hutchinson references “to prevent polarization of said [nano]particles [in Flagan], and to reduce cost due to the availability of materials” amounts to an improper application of the “obvious to try” standard. “Obvious to try” has long been held not to constitute obviousness. In re O'Farrell, 853 F.2d 894, 903, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988). The alleged motivation of preventing polarization and reducing cost is nowhere disclosed or suggested in Flagan as important attributes of his described invention and certainly does not establish that one skilled in the art would have actually been motivated to make the combination. Put another way, there is no teaching in Flagan that suggests that adding surface functional groups to the oxidized nanoparticles in Flagan would in any way reduce polarization of the electrodeposited nanoparticles or reduce the cost of the devices in Flagan. Accordingly, the Office Action has not established that one of ordinary skill in the art would have any motivation or reason to modify Flagan with the teachings in Hutchinson, since nothing suggests that modifying Flagan in the manner proposed by the Examiner would make Flagan’s device function any better (or cheaper) than the device that is actually disclosed.

Appl. No. 10/796,413  
Amnd dated September 1, 2006  
Reply to Office Action of April 7, 2006

In view of the foregoing amendments and remarks, Applicants believe that the present application is in condition for allowance and action toward that end is respectfully requested. If the Examiner believes that a telephone interview would expedite the examination of this application, the Examiner is requested to contact the undersigned at the telephone number below.

Respectfully submitted,



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